

Work Order ID 68727

Monday, May 09, 2011 9:17:18 AM



Page 1

Item ID: D3016-041

Accept



Setup Start



Revision ID:

Item Name: Seat Frame Assembly

Stop



Start Date: 4/20/2011 Start Qty: 1.00



Cust Item ID:

DUPLICATE

Required Date: 4/25/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: MF

Date: 1-05-09

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D3016	RevA / DEO A-1

100 Weld per dwg A/R 4130 rod Batch: M102226 0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut all tubes as per Dwg D3016

2-Deburr

3-Assemble tubes, fittings and weld as per Dwg D3016 using welding jig DT8597

4-Transfer drill holes from D3017-041 and D3021-041 in seat frame D3016-041

5- Assemble brackets and gusset per dwg and weld

EL 11-5-9

(21)

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00



QC

Memo

0.00

Quality Control

1 0 BE 11/05/09

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 68727

Monday, May 09, 2011 9:17:19 AM



Page 2

Item ID:	D3016-041	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Seat Frame Assembly					
Start Date:	4/20/2011	Start Qty:	1.00		Cust Item ID:	
Required Date:	4/25/2011	Req'd Qty:	1.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				<i>4</i> <i>set</i>			
130 Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3 Memo Install paint screws on fitting ends START TIME: <i>9:15</i> OVEN TEMPERATURE: <i>320 OF</i> FINISH TIME: <i>9:45</i>	0.00 0.00							<i>1x</i> <i>Ø</i> <i>md</i> <i>4/5/10</i>
140 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							<i>1x</i> <i>Ø</i> <i>md</i> <i>4/5/10</i>

M115128

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action		Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng				

NOTE: Date & initial all entries

Work Order ID 68727

Monday, May 09, 2011 9:17:19 AM

Page 3

Item ID: D3016-041

Accept

Setup Start

Revision ID:

Stop

Item Name: Seat Frame Assembly

Start Date: 4/20/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 4/25/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Identify as per dwg & Stock Location: *G-A*

0.00



Packaging

Memo

w/o 69117

0.00

Packaging

ES 11/05/12 @

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*CA 11/05/13**W 11/05/13*

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Monday, May 09, 2011 9:17:15 AM

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1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

2. Once the problem is identified, the next step is to define the objectives and goals of the project. This helps to clarify what needs to be achieved and provides a clear direction for the team.

3. The third step is to develop a plan or strategy to address the problem. This involves breaking down the problem into smaller, manageable tasks and determining the resources needed to complete them.

4. The fourth step is to implement the plan. This involves putting the strategy into action and monitoring progress regularly to ensure that the project is on track.

5. Finally, the fifth step is to evaluate the results of the project. This involves assessing the outcomes against the objectives and goals to determine the effectiveness of the project and identify areas for improvement.

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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68736

8

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, May 09, 2011 9:17:16 AM

Page 2

Work Order ID: 68727

Parent Item: D3016-041

Parent Item Name: Seat Frame Assembly

Start Date: 4/20/2011

Required Date: 4/25/2011

Start Qty: 1.00

Required Qty: 1.00

D3016-13 Manufactured No

100

Each

6.0000

2

2



Bracket



EL 11-5-9

Location

Loc Qty

Loc Code

WA019

6

44778

6

2

D3016-15 Manufactured No

100

Each

10.0000

2

2



Gusset



EL 11-5-9

Location

Loc Qty

Loc Code

WA019

10

68735

10

2

D3020-1 Manufactured No

100

Each

17.0000

4

4



Fitting



EL 11-5-9

Location

Loc Qty

Loc Code

WA

17

36713

17

4

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3016	REV. A SHEET 1 OF 3
DATE 01.05.18		TITLE SEAT FRAME ASSEMBLY	SCALE NTS
A	01.05.18	NEW ISSUE	

QTY	PART NUMBER	DESCRIPTION	MATERIAL
X	D3016-041	SEAT FRAME ASSEMBLY	N/A
1	D3016-1	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
2	D3016-3	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
1	D3016-5	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
2	D3016-7	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
1	D3016-9	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-11	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-13	BRACKET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-15	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-17	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
2	D3020-1	FITTING	N/A

NOTES

- 1) WELD PER DART QSI 004
- 2) ON SHEET METAL PARTS, BREAK ALL UNMARKED CORNERS 0.020-0.040
- 3) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

68197

DEO ATTACHED

RELEASED
01.05.30

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

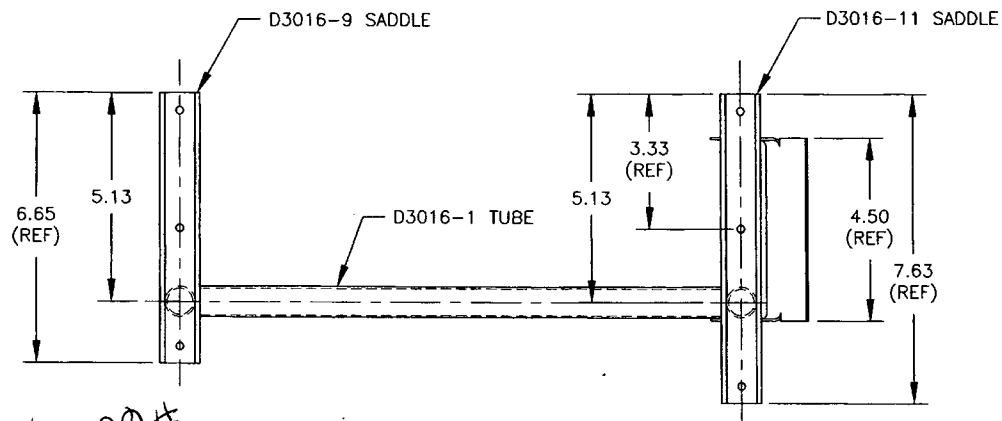
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

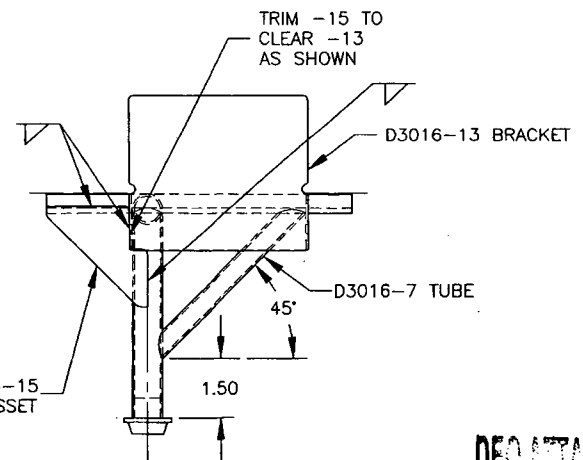
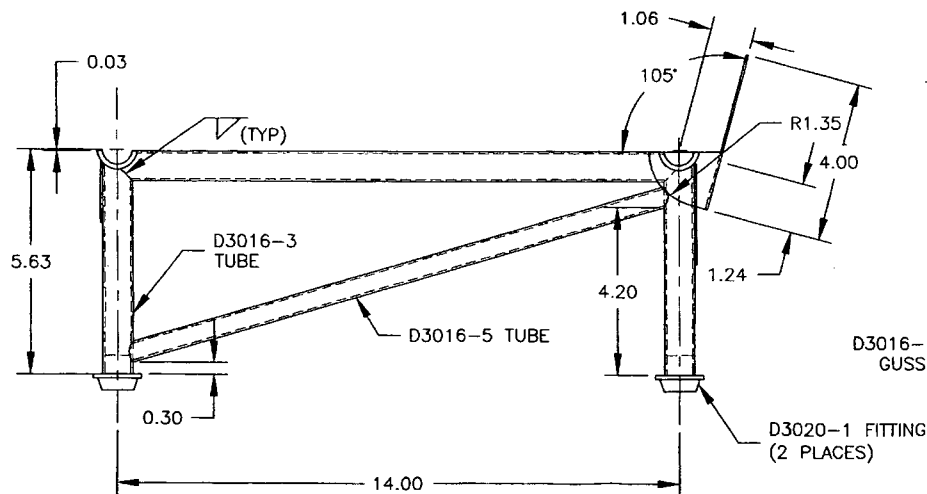
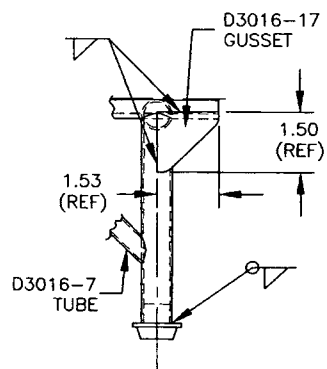
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

D3016-041 SEAT FRAME ASSEMBLY



LEL29#



DEC ATTACHED
RELEASED
01.05.30

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THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		CHECKED #	APPROVED #	DRAWING NO. D3016	REV. A SHEET 2 OF 3
DATE 01.05.18		TITLE SEAT FRAME ASSEMBLY		SCALE 1:3	

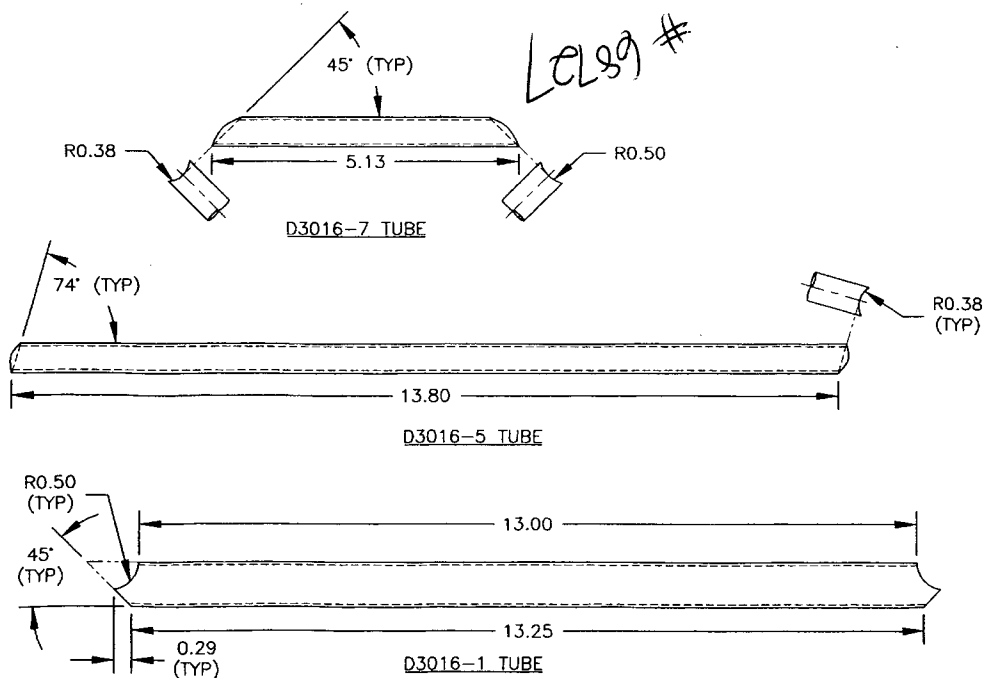
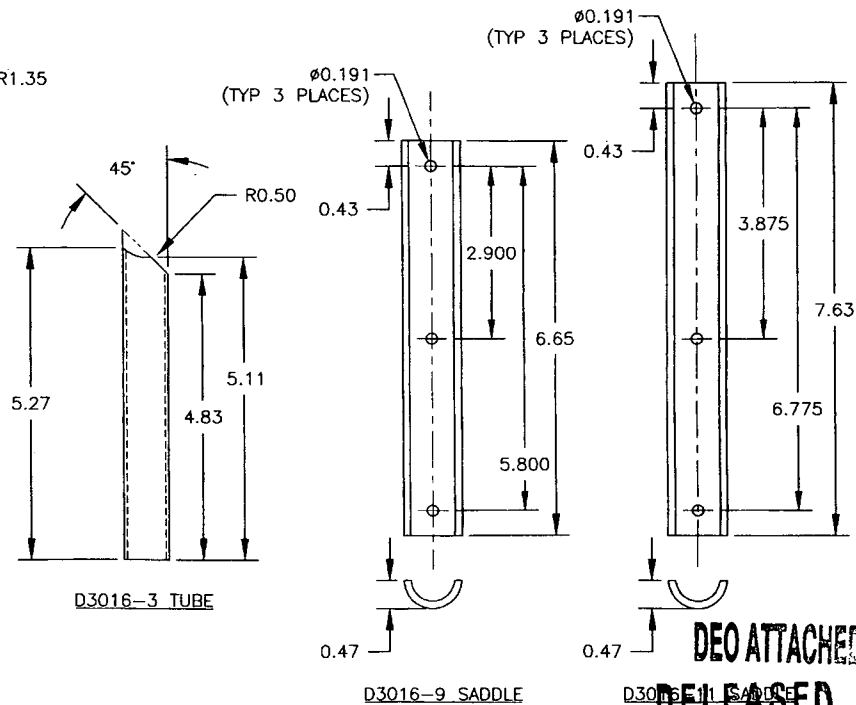
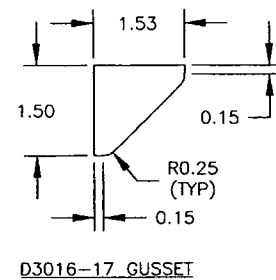
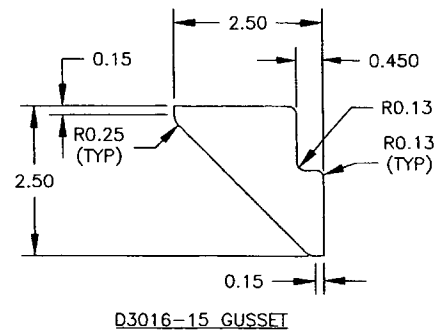
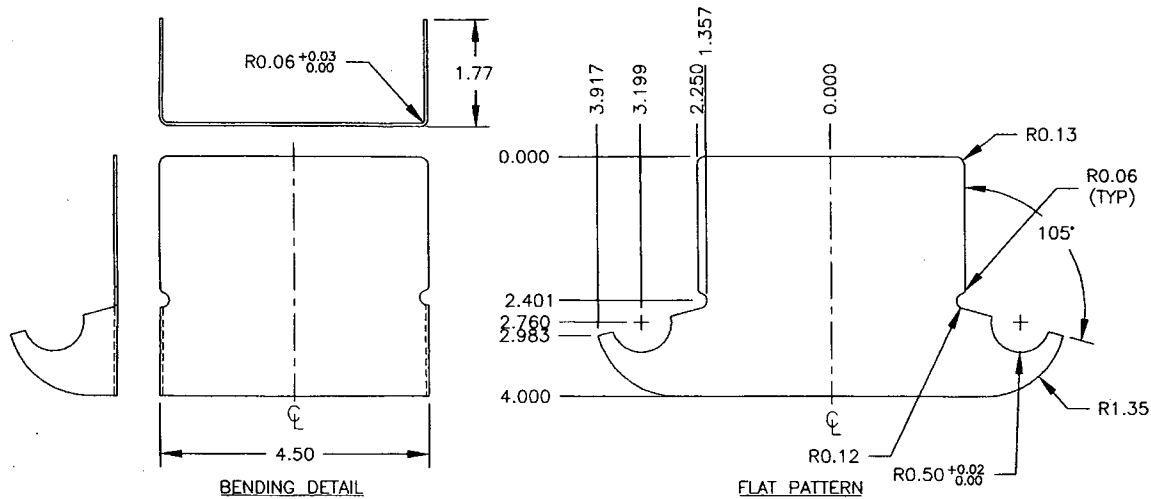
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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DESIGN	CP	DRAWN BY	CP	DART	DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO. D3016	REV. A SHEET 3 OF 3
DATE	01.05.18	TITLE	SEAT FRAME ASSEMBLY	SCALE	1:2

DEO ATTACHED
RELEASED
9.05.30

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D3016	TITLE SEAT FRAME ASSEMBLY	REV. A	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3016-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN 1	CHECKED 47	MFG. APPR. R	APPROVED WAP		DE APPR. H		
DATE 10.01.29	DATE 10.01.29	DATE 10.01.29	DATE 10.01.29		DATE 10.01.29		

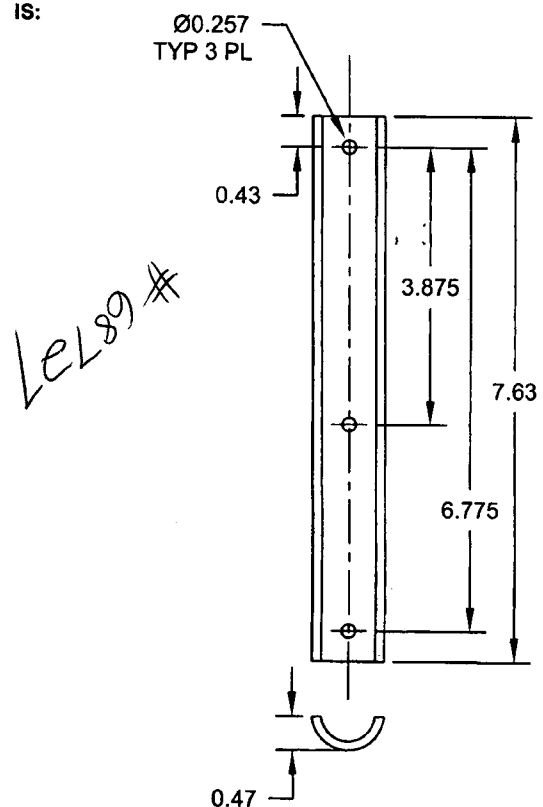
PURPOSE:

TO REVISE D3016-11 SADDLE'S HOLE SIZES

CHANGE:

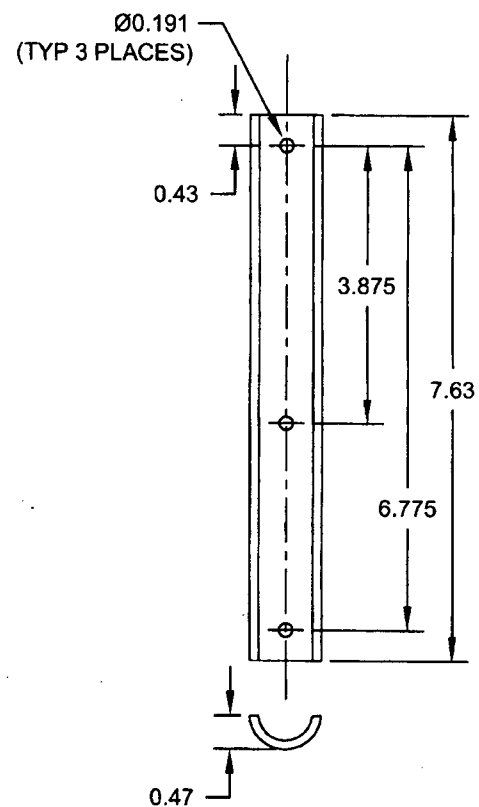
DETAIL D3016-11 SADDLE (SHEET 3): Ø0.257 TYP 3 PL WAS Ø0.191 (TYP 3 PLACES) AS SHOWN:

IS:



D3016-11 SADDLE

WAS:



D3016-11 SADDLE